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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/595,487	07/22/2008	David Dinauer	IVGN 607 1338	
	7590 10/13/201 DLOGIES CORPORAT	EXAMINER		
C/O INTELLE	VATE	CHUNDURU, SURYAPRABHA		
P.O. BOX 5205 MINNEAPOLI	=	ART UNIT	PAPER NUMBER	
			1637	
			MAIL DATE	DELIVERY MODE
			10/13/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary		Ар	plication No.	Applicant(s)				
		10	)/595,487	DINAUER ET AL.				
		Ex	aminer	Art Unit				
			ryaprabha Chunduru	1637				
Period fo	The MAILING DATE of this commun or Reply	ication appears	on the cover sheet with the c	correspondence ac	ddress			
WHIC - Exter after - If NC - Failu Any r	ORTENED STATUTORY PERIOD F CHEVER IS LONGER, FROM THE M nsions of time may be available under the provisions SIX (6) MONTHS from the mailing date of this comr period for reply is specified above, the maximum st re to reply within the set or extended period for reply reply received by the Office later than three months and patent term adjustment. See 37 CFR 1.704(b).	IAILING DATE of 37 CFR 1.136(a). nunication. atutory period will app will, by statute, caus	OF THIS COMMUNICATION In no event, however, may a reply be tin oly and will expire SIX (6) MONTHS from the the application to become ABANDONE	N. nely filed the mailing date of this c D (35 U.S.C. § 133).				
Status								
1) 又	Responsive to communication(s) file	ed on <i>04 Augus</i>	st 2010.					
,	,	2b)∐ This acti						
′=		<i>7</i> —		secution as to the	e merits is			
٠,١	3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.							
Dispositi	on of Claims	·	•					
		annlication						
•	Claim(s) <u>1-19</u> is/are pending in the application.  4a) Of the above claim(s) <u>15-17</u> is/are withdrawn from consideration.							
	5) Claim(s) is/are allowed.							
	Claim(s) <u>1-14,18 and 19</u> is/are reject	ted						
·	Claim(s) is/are objected to.							
•	Claim(s) are subject to restrict	ction and/or ele	ction requirement					
		7.11011 G11G7 G1 G1G	onom roquiromonia					
Applicati	on Papers							
9) 🔲	The specification is objected to by th	e Examiner.						
10)🛛	The drawing(s) filed on <u>21 <i>April 200</i>6</u>	፩ is/are: a)⊠ a	ccepted or b) objected to	by the Examiner.				
	Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).							
	Replacement drawing sheet(s) including	the correction is	s required if the drawing(s) is ob	jected to. See 37 C	FR 1.121(d).			
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.								
Priority ι	ınder 35 U.S.C. § 119							
12)⊠ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a)⊠ All b)□ Some * c)□ None of:								
,-	1. Certified copies of the priority documents have been received.							
	2. Certified copies of the priority documents have been received in Application No							
	3. Copies of the certified copies of the priority documents have been received in this National Stage							
	application from the International Bureau (PCT Rule 17.2(a)).							
* See the attached detailed Office action for a list of the certified copies not received.								
Attachmen	t(s)							
	e of References Cited (PTO-892)		4) Interview Summary					
	e of Draftsperson's Patent Drawing Review (F nation Disclosure Statement(s) (PTO/SB/08)	PTO-948)	Paper No(s)/Mail Da 5) Notice of Informal F					
_	r No(s)/Mail Date		6) Other:	atom application				

Art Unit: 1637

## **DETAILED ACTION**

1. The Applicants' response to the office action field on August 04, 2010 has been considered and acknowledged.

## Status of the application

2. Currently claims 1-14, 18-19 are pending under examination. Claims 1 and 5 are amended. Claims 15-17 were previously withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Group. Applicants' arguments and the amendment have been fully considered and deemed persuasive for the reasons that follow. The action is made FINAL necessitated by the amendment.

#### New Grounds of Rejections necessitated by the amendment

### Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Hsu et al. (J Immun., Vol. 169, pp.5118-5129, 2002).

Hsu et al. teach a primer set of claims 1-7, 11, for identifying KIR allele comprising one or more primer pairs to produce an amplicon that is less than or 1000 bases in length from a nucleic acid that encodes intra-exon portion or an extracellular portion of KIR (see page 5119,

col. 2, paragraph under subtitle polymerase chain reaction, paragraph under subtitle 2DS4 variant identification and cloning, page 5120, table 1, col. 1, line 1-12, page 5122, Fig. 3 indicating KIR1D amplicon less than about 1000 bases in length).

With regard to claims 8-10, 13-14, Hsu et al. also teach said amplicon length ranges from less than 1000 to greater than 2000 bases (see page 5120, table 1, col. 1, line 1-12, page 5122, Fig. 3 indicating KIR1D).

With regard to claim 12, Hsu et al. teach that the intra-exon or extracellular portion of the KIR receptor is encoded by any one of the KIR exons 1-8 (see page 5127, Fig. 7 indicating exons). Accordingly the claims are anticipated.

# Claim Rejections - 35 USC § 103

- 4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Art Unit: 1637

Claims 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hsu et al. (J Immun., Vol. 169, pp.5118-5129, 2002) in view of Stratagene Catalog (Stratagene Catalog, p. 39, 1988).

Hsu et al. teach one or more primer sets for identifying KIR alleles as discussed above in section 3.

However Hsu et al. did not teach a kit comprising said KIR primers.

Stratagene Catalog teaches a kit for gene characterization wherein the kit comprises different reagents assembled and pre-mixed specifically for a defined set of experiments (see pages 39, column 1, paragraph 1).

Therefore, it would have been prima facie obvious to a person of ordinary skill in the art at the time the invention was made, to modify a composition of KIR primer set as taught by Hsu et al., with a kit as taught by Stratagene Catalog to achieve expected advantage of developing a ready to use kit format as taught by Stratagene Catalog because Stratagene Catalog taught assembling gene characterizing components in premixed kit format for the advantage of reducing the use of more expensive reagents and for cost-effective purposes (see page 39, column 1, paragraph 1). Therefore an ordinary practitioner would have been motivated to combine the said mixture of primers into a kit format as taught by the Stratagene Catalog which would result in a ready to use kit because a kit format reduces cost and consumption of expensive products.

# Response to Arguments:

5. The objection made in the previous office action is withdrawn here in view of the Amendment.

Art Unit: 1637

6. The rejection of claims 1-14 under 35 USC 102(b) as being anticipated by Shilling et al., Applicants' arguments and the amendment were fully considered and found persuasive. The rejection is withdrawn herein in view of the amendment.

7. The rejection of claims 18-19 under 35 USC 103(a) as being unpatentable over Shilling et al. in view of Stratagene Catalog, Applicants' arguments and the amendment were fully considered and found persuasive. The rejection is withdrawn herein in view of the amendment.

### Conclusion

No claims are allowable.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Suryaprabha Chunduru whose telephone number is 571-272-0783. The examiner can normally be reached on 8.30A.M. - 4.30P.M, Mon - Friday.

Art Unit: 1637

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Benzion can be reached on 571-272-0782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Suryaprabha Chunduru/

Primary Examiner, Art Unit 1637